

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 73.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-008777**Date Inspected:** 24-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** HoChang, Korea**Location:** Changwon, Korea

CWI Name:	Sang Ho Kwak		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No
Rod Oven in Use:	Yes	No
Weld Procedures Followed:	Yes	No
Verified Joint Fit-up:	Yes	No
Approved WPS:	Yes	No
Delayed / Cancelled:	Yes	No

Bridge No: 34-0006**Component:** Pier E2 bearing and Shear key**Summary of Items Observed:**

The following report is based on METS observations at HoChang Machinery Industries (HCMI). Current work: Casting, forging and machining.

On this date the Caltrans Quality Assurance (QA) inspector, Dong J. Shin arrived at HoChang Machinery Industries (HCMI) located at Unyang and Onsan Korea and Korea Precision Co., located at Dooseo Korea. The Purpose of this trip was to observe quality control during fabrication and process of following items.

This QA Inspector observed HMIC QC Inspector Mr. Kwak and ABF welding engineer Mr. Craig, Knob has performed Welding Operator Qualification test with approved WPS ESW-002. QA Inspector has checked welding parameters and general workmanships. Welder used the ESW process with E309L (1st layer) and E 316EL (2nd and 3rd Layer) 0.4mm(T) x 30mm width strip with PF-B7FK(KOBE) Flux on base metal EHN.

Welding parameters were 540~560 amps, 29 volts and Travel speed of 180mm~190mm/min.

Welder name	ID	WPS No	Position	Visual Inspection	Penetrant test
Ck, Jang	AIY	ESW-002	FLAT	Acceptable	Acceptable
KJ, Lee	AX	ESW-002	FLAT	Acceptable	Acceptable
JM, Choi	AZ	ESW-002	FLAT	Acceptable	Acceptable

Forging

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

1. Bearing Bottom Housing (B1-07/F07302-010): Completed final MT.
2. Bearing Bottom Housing (B2-07/F07302-020): Completed final MT.
3. Bearing Bottom Housing (B3-07/F07302-030): Completed final MT.
4. Bearing Bottom Housing (B4-07/F07302-040): Completed final MT.
5. Spherical Ring (S1-07/F07302-050): Completed pre machining for SS overlay welding.
6. Spherical Ring (S2-07/F07302-060): Completed pre machining for SS overlay welding.
7. Spherical Ring (S3-07/F07302-070): Completed pre machining for SS overlay welding.
8. Spherical Ring (S4-07/F07302-080): Completed pre machining for SS overlay welding.
9. Solid Shaft (B1-02/F07302-090): Completed pre machining for SS overlay welding.
10. Solid Shaft (B2-02/F07302-100): Completed pre machining for SS overlay welding.
11. Solid Shaft (B3-02/F07302-110): Completed pre machining for SS overlay welding.
12. Solid Shaft (B4-02/F07302-120): Completed pre machining for SS overlay welding.

- F number is DooSan Production Number.
- B number is drawing Number.

Casting

On this date the Caltrans Quality Assurance (QA) inspector, Dong J. Shin arrived at HoChang Machinery Industries (HCMI) located at Unyang, Korea and DooSan Heavy Industries(DHIC) located at Changwon, Korea. The Purpose of this trip was to observe quality control during fabrication and process of following items.

1. Bearing Top Housing (B1-06, C07039-010): Waiting for final machining at HMIC.
2. Bearing Top Housing (B2-06, C07039-020): Waiting for final machining at HMIC.
3. Bearing Top Housing (B3-06, C07039-030): Continue to final machining.
4. Bearing Top Housing (B4-06, C07039-040): Waiting for final machining at HMIC.
5. Bearing Hold Down Assembly (B1-01-1, C07039-050): Completed final MT.
6. Bearing Hold Down Assembly (B1-01-2, C07039-060): Completed final MT.
7. Bearing Hold Down Assembly (B2-01-1, C07039-070): Completed final MT.
8. Bearing Hold Down Assembly (B2-01-2, C07039-080): Completed final MT.
9. Bearing Hold Down Assembly (B3-01-1, C07039-170): Completed final MT.
10. Bearing Hold Down Assembly (B3-01-2, C07039-180): Completed final MT.
11. Bearing Hold Down Assembly (B4-01-1, C07039-190): Completed final MT.
12. Bearing Hold Down Assembly (B4-01-2, C07039-200): Completed final MT.
13. Shear Key Stub (S1-01, C07039-090): Continue final machining.
14. Shear Key Stub (S2-01, C07039-100): Continue final machining.
15. Shear Key Stub (S3-01, C07039-110): Continue final machining.
16. Shear Key Stub (S4-01, C07039-120): Continue final machining.
17. Shear key Housing (S1-03, C07039-130): Waiting for final machining at HMIC.
18. Shear key Housing (S2-03, C07039-140): Waiting for final machining at HMIC.
19. Shear key Housing (S3-03, C07039-150): Waiting for final machining at HMIC.
20. Shear key Housing (S4-03, C07039-160): Waiting for final machining at HMIC.

* S and B number is drawing number.

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

* C number is DSHI ID number.



Summary of Conversations:

*Discuss with Mr. S. H. Kwak regarding general project schedule.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, (510) 385-5910, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

Inspected By:	Shin,DJ	Quality Assurance Inspector
----------------------	---------	-----------------------------

Reviewed By:	Lanz,Joe	QA Reviewer
---------------------	----------	-------------